LAMPIRAN 1

LEMBAR ASISTENSI

DEPARTEMEN PENDIDIKAN NASIONAL
FAKULTAS TEKNIK – UNIVERSITAS DIPONEGORO
PROGRAM STUDI TEKNIK GEODESI
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LEMBAR ASISTENSI TUGAS AKHIR

NAMA : BAMBANG SEPTIANA

NIM : 21110112130058

JUDUL TUGAS AKHIR :ANALISIS PERBANDINGAN HASIL ORTHOREKTIFIKASI METODE *RANGE DOPPLER TERRAIN CORRECTION* DAN *METODE SAR SIMULATION TERRAIN CORRECTION* MENGGUNAKAN DATA SAR SENTINEL – 1

DOSEN PEMBIMBING 1 : ARWAN PUTRA WIJAYA,ST.,MT

No	Hari/Tanggal	Uraian Konsultasi Tugas Akhir	Paraf
1	15/8 - 2016	Konsultasi Data	
2	18/9 - 2016	BAB I	
3	21/9 - 2016	BAB II & revisi BAB I	
4	4/10 - 2016	BAB III	
5	12/10 - 2016	BAB III Revisi	
6	16/11 - 2016	BAB IV & BAB V	
7	25/11 - 2016	Acc Seminar Hasil	

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DOSEN PEMBIMBING 2 : ANDRI SUPRAYOGI.,ST.,MT

No	Hari/Tanggal	Uraian Konsultasi Tugas Akhir	Paraf
1	12/8 - 2016	Asistensi Data	
2	25/8 - 2016	BAB III & BAB IV	
3	2/9 - 2016	Revisi BAB III • Metode penelitian & diagram alir	
4	12/9 - 2016	Revisi BAB IV • Perbaiki hasil, analisis	
5	23/9 - 2016	BAB V	
6	20/10 - 2016	• Revisi BAB V - Kesimpulan dan SARAN	
7	29/11 - 2016	• ACC Seminar Tugas Akhir	

LAMPIRAN 2

TABEL RESIDUAL METODE ORTHOREKTIFIKASI

Analisis Ketelitian Metode Orthorektifikasi *Range Doppler Terrain Correction* dengan Pembanding Titik ICP Lapangan

Nomor Titik	Nama Titik	X (Titik GCP)	X (Peta RD)	dX	dX^2	Y (Titik GCP)	Y (Peta RD)	dY	dY^2	dX^2+dY^2	rms r
1	G532	258826,544	258845,189	18,645	347,629	9228588,085	9228569,379	-18,706	349,919	697,549	26,411
2	G533	256761,571	256769,061	7,490	56,103	9236081,937	9236107,033	25,096	629,819	685,922	26,190
3	G537	263244,060	263257,217	13,158	173,126	9243060,463	9243080,903	20,440	417,783	590,910	24,309
4	G543	271720,423	271718,205	-2,218	4,919	9232222,747	9232242,480	19,733	389,389	394,308	19,857
5	G545	280201,851	280194,156	-7,695	59,213	9245500,415	9245528,498	28,083	788,651	847,865	29,118
6	G554	280257,460	280265,872	8,412	70,762	9232453,034	9232452,110	-0,924	0,854	71,616	8,463
7	G555	282416,566	282424,269	7,703	59,336	9248161,086	9248163,045	1,959	3,836	63,173	7,948
8	G561	284322,389	284340,714	18,325	335,808	9229507,316	9229480,727	-26,589	706,974	1042,782	32,292
9	G562	284165,383	284180,068	14,685	215,645	9239925,413	9239957,041	31,627	1000,288	1215,933	34,870
10	G571	286536,773	286548,541	11,768	138,483	9234673,209	9234660,348	-12,861	165,415	303,898	17,433
11	G708	268233,413	268222,988	-10,425	108,676	9244774,055	9244764,851	-9,204	84,714	193,390	13,906
12	G709	263283,034	263277,935	-5,099	25,997	9231585,001	9231593,026	8,026	64,409	90,406	9,508
13	G714	273152,976	273147,829	-5,147	26,487	9242612,474	9242620,011	7,537	56,803	83,290	9,126
14	I256	278286,817	278271,714	-15,103	228,104	9238122,863	9238143,515	20,652	426,502	654,606	25,585
15	I272	262557,930	262536,774	-21,156	447,570	9239439,874	9239454,434	14,560	211,985	659,555	25,682
16	I258	263001,165	262995,836	-5,329	28,397	9227290,470	9227303,059	12,589	158,476	186,873	13,670
17	I271	269510,273	269481,934	-28,339	803,122	9220026,434	9220042,305	15,872	251,905	1055,027	32,481
18	I272	279653,742	279660,645	6,903	47,652	9224082,962	9224106,964	24,002	576,079	623,731	24,975
19	I713	266540,410	266557,640	17,230	296,861	9223764,520	9223786,930	22,410	502,201	799,062	28,268
20	G536	273373,778	273379,979	6,201	38,456	9225585,556	9225583,731	-1,825	3,330	41,786	6,464
21	G555	276216,320	276248,092	31,772	1009,475	9217265,713	9217256,290	-9,422	88,781	1098,256	33,140

Jumlah	11399,935
Rata-Rata	542,854
RMSEr	23,299
Akurasi CE90	35,357

Analisis Ketelitian Metode Orthorektifikasi SAR *Simulation Terrain Correction* dengan Pembanding Titik ICP Lapangan

Nomor Titik	Nama Titik	X (Titik GCP)	X (Peta SSTC)	dX	dX^2	Y (Titik GCP)	Y (Peta SSTC)	dY	dY^2	dX^2+dY^2	rmse r
1	G532	258826,544	258849,997	23,453	550,042	9228588,085	9228568,018	-20,067	402,684	952,726	30,866
2	G533	256761,571	256779,445	17,874	319,486	9236081,937	9236101,626	19,689	387,660	707,146	26,592
3	G537	263244,060	263262,559	18,500	342,232	9243060,463	9243072,219	11,756	138,203	480,435	21,919
4	G543	271720,423	271752,754	32,331	1045,268	9232222,747	9232200,454	-22,293	496,988	1542,255	39,272
5	G545	280201,851	280224,869	23,018	529,833	9245500,415	9245518,601	18,185	330,712	860,545	29,335
6	G554	280257,460	280288,373	30,913	955,639	9232453,034	9232432,023	-21,011	441,477	1397,116	37,378
7	G555	282416,566	282449,627	33,061	1093,053	9248161,086	9248170,168	9,081	82,470	1175,524	34,286
8	G561	284322,389	284335,815	13,426	180,257	9229507,316	9229486,971	-20,345	413,931	594,189	24,376
9	G562	284165,383	284223,508	58,126	3378,581	9239925,413	9239948,110	22,697	515,135	3893,716	62,400
10	G571	286536,773	286568,816	32,042	1026,694	9234673,209	9234650,975	-22,234	494,357	1521,051	39,001
11	G708	268233,413	268254,917	21,505	462,460	9244774,055	9244758,238	-15,818	250,200	712,660	26,696
12	G709	263283,034	263300,017	16,983	288,431	9231585,001	9231589,754	4,754	22,597	311,028	17,636
13	G714	273152,976	273171,046	18,070	326,529	9242612,474	9242611,829	-0,645	0,416	326,945	18,082
14	I256	278286,817	278306,542	19,724	389,051	9238122,863	9238131,547	8,683	75,402	464,453	21,551
15	I272	262557,930	262549,606	-8,323	69,279	9239439,874	9239450,576	10,702	114,537	183,817	13,558
16	I258	263001,165	263024,969	23,804	566,608	9227290,470	9227289,690	-0,780	0,608	567,216	23,816
17	I271	269510,273	269501,767	-8,506	72,359	9220026,434	9220051,318	24,885	619,245	691,604	26,298
18	I272	279653,742	279668,280	14,537	211,333	9224082,962	9224075,761	-7,201	51,859	263,193	16,223
19	I713	266540,410	266565,486	25,076	628,801	9223764,520	9223772,549	8,029	64,467	693,268	26,330
20	G536	273373,778	273386,116	12,337	152,212	9225585,556	9225574,402	-11,153	124,395	276,607	16,632
21	G555	276216,320	276245,958	29,638	878,395	9217265,713	9217240,004	-25,708	660,909	1539,304	39,234

Jumlah	19154,797	
Rata-Rata	912,133	
RMSEr	30,202	
Akurasi CE90	45,831	

Nomor Titik	Nama Titik	X (MAP)	X (Source)	dX	dX^2	Y (MAP)	Y (Source)	dY	dY^2	dX^2+dY^2	rms r
1	icp01	285573,576	285560,420	-13,156	173,079	9245525,163	9245536,584	11,421	130,431	303,510	17,422
2	icp02	276744,168	276731,348	-12,820	164,349	9245496,345	9245500,976	4,632	21,451	185,800	13,631
3	icp03	272450,991	272441,804	-9,187	84,406	9244234,142	9244246,830	12,688	160,993	245,399	15,665
4	icp04	266648,582	266643,844	-4,738	22,446	9245382,744	9245399,340	16,596	275,433	297,879	17,259
5	icp05	261516,486	261519,983	3,497	12,227	9247471,616	9247465,406	-6,210	38,569	50,796	7,127
6	icp06	262509,501	262510,834	1,333	1,776	9239446,836	9239453,373	6,537	42,737	44,513	6,672
7	icp07	268530,976	268516,644	-14,332	205,397	9236420,364	9236416,356	-4,008	16,067	221,463	14,882
8	icp08	274228,749	274205,831	-22,918	525,246	9232006,371	9232014,802	8,431	71,082	596,327	24,420
9	icp09	280800,797	280798,736	-2,061	4,249	9231791,702	9231795,565	3,863	14,921	19,169	4,378
10	icp10	284393,328	284350,096	-43,232	1869,046	9229511,522	9229523,330	11,808	139,418	2008,464	44,816
11	icp11	276869,569	276867,223	-2,346	5,505	9228609,748	9228590,890	-18,858	355,620	361,125	19,003
12	icp12	273361,825	273363,807	1,982	3,927	9225572,736	9225562,864	-9,872	97,458	101,385	10,069
13	icp13	269738,032	269741,022	2,990	8,941	9226571,769	9226571,631	-0,138	0,019	8,960	2,993
14	icp14	261763,941	261748,794	-15,147	229,445	9230585,724	9230591,267	5,543	30,727	260,172	16,130
15	icp15	262370,767	262355,755	-15,012	225,348	9225661,986	9225666,720	4,734	22,413	247,761	15,740
16	icp16	278654,316	278643,385	-10,932	119,501	9221773,822	9221783,962	10,140	102,828	222,329	14,911
17	icp17	278449,479	278439,100	-10,379	107,734	9222030,701	9222034,230	3,529	12,454	120,188	10,963
18	icp18	270350,626	270375,727	25,102	630,086	9221186,220	9221193,216	6,996	48,942	679,027	26,058
19	icp19	256382,777	256373,257	-9,520	90,622	9218928,143	9218930,579	2,436	5,936	96,558	9,826
20	icp20	274493,084	274500,499	7,415	54,983	9199058,021	9199084,558	26,537	704,198	759,181	27,553
21	icp21	272205,631	272257,241	51,610	2663,574	9205833,025	9205837,712	4,687	21,970	2685,544	51,822

Jumlah	9515,5538
Rata-Rata	453,1216
RMSEr	21,286653
Akurasi CE90	32,302496

Nomor Titik	Nama Titik	X (MAP)	X (Source)	dX	dX^2	Y (MAP)	Y (Source)	dY	dY^2	dX^2+dY^2	rms r
1	icp01	285573,576	285605,313	-31,737	1007,221	9245525,163	9245522,972	-2,191	4,799	1012,020	31,812
2	icp02	276744,168	276754,977	-10,810	116,853	9245496,345	9245486,930	-9,415	88,641	205,494	14,335
3	icp03	272450,991	272464,913	-13,922	193,832	9244234,142	9244240,169	6,027	36,325	230,158	15,171
4	icp04	266648,582	266666,419	-17,837	318,142	9245382,744	9245401,904	19,160	367,113	685,255	26,177
5	icp05	261516,486	261497,556	18,930	358,353	9247471,616	9247454,123	-17,493	305,995	664,349	25,775
6	icp06	262509,501	262539,226	-29,725	883,604	9239446,836	9239443,722	-3,113	9,694	893,298	29,888
7	icp07	268530,976	268520,710	10,266	105,383	9236420,364	9236417,785	-2,579	6,649	112,032	10,585
8	icp08	274228,749	274225,994	2,755	7,591	9232006,371	9232002,390	-3,981	15,849	23,440	4,841
9	icp09	280800,797	280817,088	-16,292	265,418	9231791,702	9231786,228	-5,474	29,965	295,383	17,187
10	icp10	284393,328	284355,286	38,042	1447,185	9229511,522	9229513,781	2,259	5,104	1452,289	38,109
11	icp11	276869,569	276894,690	-25,121	631,077	9228609,748	9228573,294	-36,454	1328,922	1959,999	44,272
12	icp12	273361,825	273379,947	-18,122	328,417	9225572,736	9225559,276	-13,460	181,185	509,601	22,574
13	icp13	269738,032	269768,351	-30,319	919,252	9226571,769	9226555,833	-15,936	253,962	1173,214	34,252
14	icp14	261763,941	261778,695	-14,754	217,673	9230585,724	9230581,851	-3,873	15,002	232,675	15,254
15	icp15	262370,767	262407,676	-36,909	1362,302	9225661,986	9225662,905	0,919	0,845	1363,147	36,921
16	icp16	278654,316	278661,287	-6,971	48,597	9221773,822	9221778,592	4,770	22,753	71,350	8,447
17	icp17	278449,479	278468,335	-18,856	355,536	9222030,701	9222018,650	-12,051	145,223	500,760	22,378
18	icp18	270350,626	270381,607	-30,981	959,831	9221186,220	9221172,715	-13,505	182,380	1142,211	33,797
19	icp19	256382,777	256436,963	-54,186	2936,130	9218928,143	9218934,624	6,481	42,005	2978,135	54,572
20	icp20	274493,084	274500,522	-7,438	55,321	9199058,021	9199060,810	2,789	7,780	63,101	7,944
21	icp21	272205,631	272273,205	-67,574	4566,230	9205833,025	9205828,301	-4,724	22,317	4588,547	67,739

Jumlah	20156,459	
Rata-Rata	959,831	
RMSEr	30,981	
Akurasi CE90	47,014	

LAMPIRAN 3

TABEL ANALISIS PERBANDINGAN JARAK DAN SUDUT

Analisis Perbandingan Jarak dengan Pembanding Titik ICP

sud	Dari	Ke	Jarak (km)	Jarak (RD) (km)	ΔRD	Jarak (SSTC) (km)	∆SSTC
1	G537	G708	5.275	5.272	0.003	5.265	0.010
2	G537	I257	3.685	3.688	0.003	3.697	0.012
3	I257	G708	7.789	7.788	0.001	7.806	0.017
4	G708	G714	5.374	5.375	0.001	5.365	0.009
5	I257	G714	11.060	11.066	0.006	11.073	0.013
6	G537	G533	9.525	9.52	0.005	9.524	0.001
7	G533	I257	6.699	6.686	0.013	6.668	0.031
8	G533	G709	7.922	7.93	0.008	7.922	0.000
9	I257	G709	7.888	7.895	0.007	7.896	0.008
10	G709	G714	14.799	14.793	0.006	14.799	0.000
11	G714	G543	10.488	10.479	0.009	10.476	0.012
12	G543	G709	8.461	8.46	0.001	8.466	0.005
13	G714	G545	7.618	7.638	0.020	7.627	0.009
14	G545	I256	7.622	7.623	0.001	7.615	0.007
15	I256	G714	6.820	6.822	0.002	6.804	0.016
16	I256	G543	8.828	8.832	0.004	8.818	0.010
17	I256	G554	6.003	6.014	0.011	6.03	0.027
18	G554	G543	8.540	8.553	0.013	8.549	0.009
19	G555	G545	3.462	3.458	0.004	3.459	0.003
20	G555	G571	14.103	14.103	0.000	14.119	0.016
21	G545	G571	12.544	12.566	0.022	12.566	0.022
22	G542	I259	11.968	11.941	0.027	11.963	0.005
23	I256	G571	8.942	8.954	0.012	8.98	0.038
24	G554	G571	6.660	6.66	0.000	6.66	0.000
25	G571	G561	5.620	5.611	0.009	5.63	0.010
26	G554	G561	5.020	5.016	0.004	5.044	0.024
27	G554	I272	8.392	8.385	0.007	8.383	0.009
28	G561	I272	7.157	7.162	0.005	7.138	0.019
29	G543	G536	6.840	6.759	0.081	6.901	0.061
30	G536	G554	9.724	9.733	0.009	9.727	0.003
31	G536	I272	6.457	6.459	0.002	6.456	0.001
32	G709	G536	11.740	11.744	0.004	11.754	0.014
33	G533	G532	7.773	7.79	0.017	7.82	0.047
34	G532	G709	5.370	5.381	0.011	5.366	0.004
35	G709	I256	4.304	4.306	0.002	4.299	0.005
36	G532	I258	4.372	4.369	0.003	4.339	0.033
37	I258	G536	10.512	10.521	0.009	10.525	0.013
38	I258	I271	9.754	9.746	0.008	9.736	0.018
39	I271	G536	6.812	6.853	0.041	6.774	0.038
40	I271	I272	10.925	10.931	0.006	10.955	0.030
41	I272	G542	19.661	19.665	0.004	19.685	0.024
42	I271	G542	14.161	14.169	0.008	14.182	0.021
43	I272	G710	20.168	20.146	0.022	20.157	0.011
44	G542	G710	6.907	6.884	0.023	6.863	0.044
45	G710	I259	8.715	8.712	0.003	8.719	0.004
				Rata-Rata	0.010	Rata-Rata	0.016

Analisis Perbandingan Azimuth dengan Pembanding Titik ICP

No	Dari	Ke	Azimuth ICP	Range Doppler		SAR Simulation TC	
				Azimuth	ΔAzimuth	Azimuth	ΔAzimuth
1	G537	G708	71.045	71.107	0.062	71.208	0.183
2	G537	I257	269.996	269.995	0.000	269.996	0.010
3	I257	G708	46.776	46.926	0.151	46.915	0.150
4	G708	G714	113.720	113.807	0.087	113.757	0.047
5	I257	G714	73.330	73.388	0.057	73.438	0.117
6	G537	G533	269.959	269.959	0.000	269.959	0.010
7	G533	I257	59.916	59.879	0.036	59.943	0.037
8	G533	G709	124.589	124.750	0.162	124.682	0.104
9	I257	G709	174.726	174.614	0.112	174.664	0.072
10	G709	G714	41.830	41.829	0.001	41.869	0.049
11	G714	G543	269.991	269.991	0.000	269.991	0.010
12	G543	G709	269.946	269.946	0.000	269.946	0.010
13	G714	G545	67.721	67.746	0.025	67.775	0.064
14	G545	I256	269.988	269.988	0.000	269.988	0.010
15	I256	G714	311.170	311.141	0.029	311.113	0.067
16	I256	G543	269.958	269.958	0.000	269.958	0.010
17	I256	G554	160.834	160.690	0.144	160.846	0.022
18	G554	G543	269.945	269.945	0.000	269.945	0.010
19	G555	G545	269.986	269.986	0.000	269.986	0.010
20	G555	G571	163.013	163.017	0.004	163.091	0.087
21	G545	G571	149.668	149.690	0.022	149.746	0.587
22	G542	I259	153.578	153.477	0.102	153.659	0.091
23	I256	G571	112.692	112.823	0.132	112.791	0.109
24	G554	G571	70.528	70.642	0.114	70.597	0.079
25	G571	G561	269.986	269.986	0.000	269.986	0.010
26	G554	G561	125.930	126.101	0.171	125.901	0.038
27	G554	I272	269.996	269.996	0.000	269.996	0.010
28	G561	I272	269.970	269.970	0.000	269.970	0.010
29	G543	G536	166.012	165.999	0.013	166.067	0.065
30	G536	G554	45.068	45.068	0.001	45.152	0.095
31	G536	I272	103.456	103.359	0.097	103.419	0.047
32	G709	G536	120.734	120.751	0.018	120.812	0.088
33	G533	G532	164.594	164.604	0.010	164.707	0.123
34	G532	G709	56.080	55.701	0.378	56.096	0.027
35	G709	I256	66.455	66.400	0.055	66.494	0.049
36	G532	I258	107.267	106.966	0.301	107.238	0.039
37	I258	G536	99.334	99.406	0.072	99.403	0.079
38	I258	I271	138.137	138.224	0.086	138.128	0.019
39	I271	G536	34.799	35.122	0.323	34.975	0.187
40	I271	I272	68.203	68.308	0.105	68.312	0.119
41	I272	G542	269.950	269.949	0.000	269.950	0.100
42	I271	G542	170.646	170.638	0.008	170.699	0.063
43	I272	G710	269.992	269.992	0.000	269.992	0.010
44	G542	G710	107.695	107.486	0.209	107.599	0.106
45	G710	I259	269.992	269.992	0.000	269.992	0.010
				Jumlah	3.08629024	Jumlah	3.24054554
				Rata-Rata	0.069	Rata-Rata	0.072

Analisis Perbandingan Jarak dengan Pembanding Titik Uji RBI

No	Dari	Ke	Jarak (km)	Jarak (RD) (km)	ΔRD	Jarak (SSTC) (km)	ΔSSTC
1	icp05	icp04	5.541	5.536	0.005	5.562	0.021
2	icp05	icp06	8.086	8.082	0.004	8.083	0.003
3	icp04	icp06	7.237	7.243	0.006	7.252	0.015
4	icp04	icp07	9.158	9.175	0.017	9.184	0.026
5	icp06	icp07	6.739	6.728	0.011	6.718	0.021
6	icp04	icp03	5.915	5.913	0.002	5.913	0.002
7	icp03	icp07	8.742	8.759	0.017	8.761	0.019
8	icp03	icp02	4.475	4.47	0.005	4.468	0.007
9	icp02	icp01	8.829	8.829	0.000	8.851	0.022
10	icp01	icp10	16.057	16.063	0.006	16.057	0.000
11	icp01	icp09	14.539	14.546	0.007	14.546	0.007
12	icp02	icp09	14.292	14.292	0.000	14.29	0.002
13	icp02	icp08	13.722	13.72	0.002	13.722	0.000
14	icp03	icp08	12.356	12.36	0.004	12.367	0.011
15	icp07	icp08	7.207	7.2	0.007	7.199	0.008
16	icp08	icp09	6.576	6.578	0.002	6.595	0.019
17	icp09	icp10	4.255	4.248	0.007	4.205	0.050
18	icp10	icp16	9.634	9.626	0.008	9.531	0.103
19	icp09	icp16	10.245	10.24	0.005	10.047	0.198
20	icp09	icp11	5.058	5.06	0.002	5.071	0.013
21	icp11	icp17	6.766	6.745	0.021	6.741	0.025
22	icp17	icp16	0.329	0.313	0.016	0.308	0.021
23	icp19	icp21	20.539	20.542	0.003	20.539	0.000
24	icp08	icp11	4.302	4.335	0.033	4.343	0.041
25	icp11	icp12	4.640	4.632	0.008	4.63	0.010
26	icp12	icp17	6.199	6.207	0.008	6.199	0.000
27	icp08	icp12	6.492	6.497	0.005	6.495	0.003
28	icp07	icp13	9.922	9.921	0.001	9.931	0.009
29	icp08	icp13	7.050	7.045	0.005	7.036	0.014
30	icp12	icp13	3.759	3.752	0.007	3.746	0.013
31	icp07	icp14	8.935	8.901	0.034	8.923	0.012
32	icp13	icp14	8.927	8.913	0.014	8.947	0.020
33	icp06	icp14	8.892	8.887	0.005	8.889	0.003
34	icp14	icp15	4.961	4.961	0.000	4.96	0.001
35	icp13	icp15	7.423	7.408	0.015	7.415	0.008
36	icp13	icp18	5.420	5.415	0.005	5.417	0.003
37	icp12	icp18	5.321	5.304	0.017	5.313	0.008
38	icp18	icp17	8.143	8.132	0.011	8.131	0.012
39	icp15	icp18	9.149	9.149	0.000	9.151	0.002
40	icp19	icp18	14.149	14.122	0.027	14.123	0.026
41	icp15	icp19	9.011	8.994	0.017	8.995	0.016
42	icp18	icp21	15.465	15.471	0.006	15.457	0.008
43	icp17	icp21	17.359	17.343	0.016	17.342	0.017
44	icp16	icp20	23.311	23.084	0.227	23.096	0.215
45	icp20	icp21	7.151	7.132	0.019	7.132	0.019
				Rata-Rata	0.014	Rata-Rata	0.023

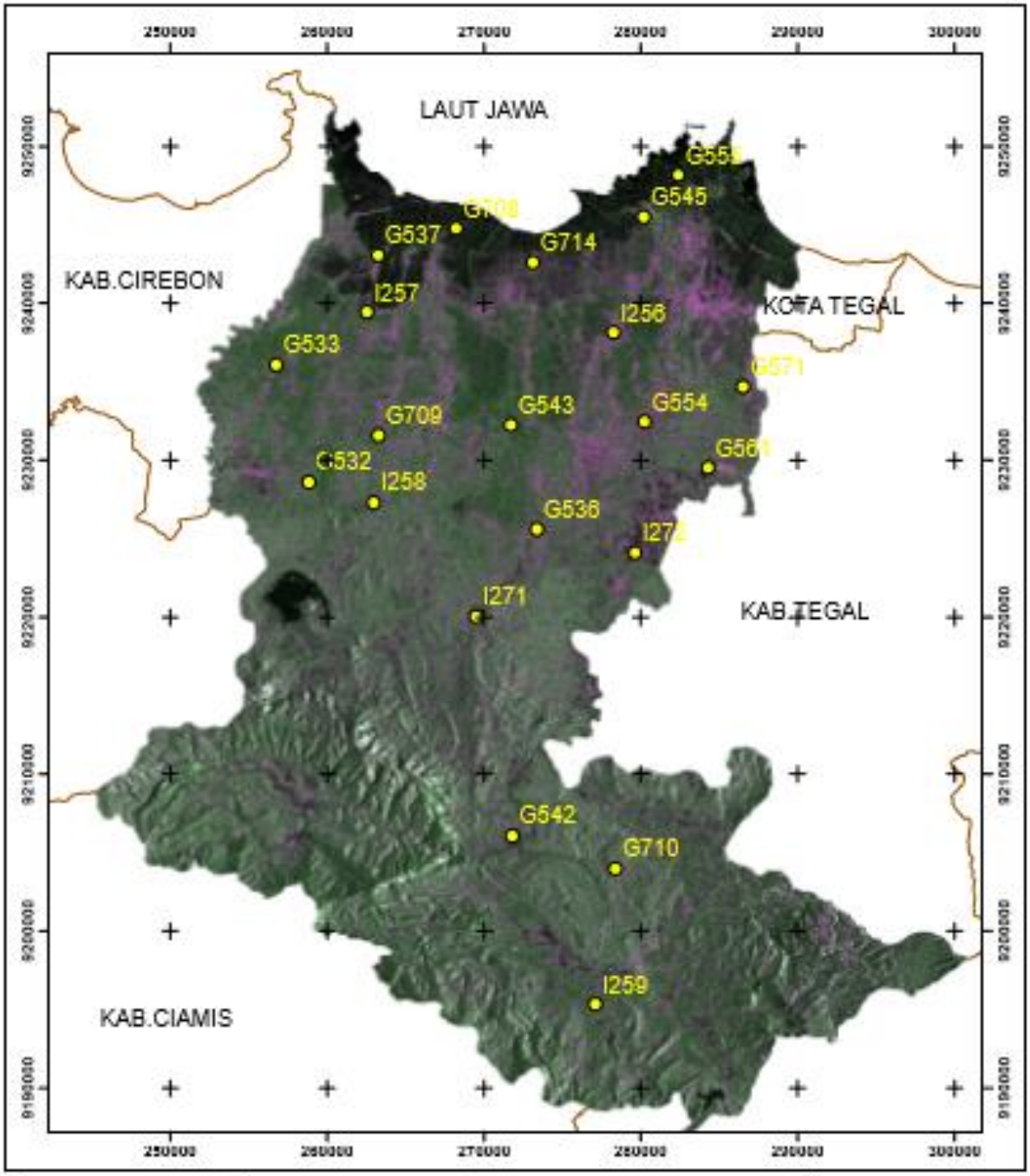
AnalisisPerbandingan Azimuth dengan Pembanding Peta RBI

No	Dari	Ke	Azimuth RBI	Range Doppler		SAR Simulation TC	
				Azimuth	ΔAzimuth	Azimuth	ΔAzimuth
1	icp05	icp04	112.147	111.964	0.183	111.663	0.485
2	icp05	icp06	172.946	172.873	0.073	172.873	0.073
3	icp04	icp06	269.974	269.974	0.000	269.974	0.000
4	icp04	icp07	168.138	168.213	0.074	168.213	0.074
5	icp06	icp07	116.685	116.788	0.103	116.788	0.103
6	icp04	icp03	101.197	101.222	0.025	101.222	0.025
7	icp03	icp07	269.975	269.975	0.000	269.975	0.000
8	icp03	icp02	73.617	73.703	0.087	73.703	0.087
9	icp02	icp01	89.813	89.768	0.045	89.768	0.045
10	icp01	icp10	269.992	269.992	0.000	269.992	0.000
11	icp01	icp09	269.969	269.969	0.000	269.969	0.000
12	icp02	icp09	163.511	163.511	0.000	163.511	0.000
13	icp02	icp08	269.984	269.984	0.000	269.984	0.000
14	icp03	icp08	171.728	171.757	0.029	171.757	0.029
15	icp07	icp08	127.764	127.691	0.074	127.691	0.074
16	icp08	icp09	91.871	91.899	0.028	91.899	0.028
17	icp09	icp10	122.403	122.436	0.032	122.436	0.032
18	icp10	icp16	269.963	269.963	0.000	269.963	0.000
19	icp09	icp16	269.986	269.986	0.000	269.986	0.000
20	icp09	icp11	269.975	269.975	0.000	269.975	0.000
21	icp11	icp17	166.497	166.410	0.087	166.410	0.087
22	icp17	icp16	141.431	143.441	2.010	143.441	2.010
23	icp19	icp21	129.611	129.597	0.014	129.597	0.014
24	icp08	icp11	142.136	142.165	0.030	142.165	0.030
25	icp11	icp12	269.978	269.977	0.000	269.977	0.000
26	icp12	icp17	124.846	124.767	0.079	124.767	0.079
27	icp08	icp12	269.994	269.995	0.000	269.995	0.000
28	icp07	icp13	173.013	172.907	0.105	172.907	0.105
29	icp08	icp13	269.971	269.971	0.000	269.971	0.000
30	icp12	icp13	285.413	285.415	0.002	285.415	0.002
31	icp07	icp14	269.957	269.957	0.000	269.957	0.000
32	icp13	icp14	296.720	296.809	0.089	296.809	0.089
33	icp06	icp14	269.995	269.995	0.000	269.995	0.000
34	icp14	icp15	172.974	173.029	0.055	173.029	0.055
35	icp13	icp15	269.953	269.953	0.000	269.953	0.000
36	icp13	icp18	173.511	173.347	0.164	173.347	0.164
37	icp12	icp18	269.981	269.981	0.000	269.981	0.000
38	icp18	icp17	84.047	84.061	0.014	84.061	0.014
39	icp15	icp18	119.287	119.277	0.011	119.277	0.011
40	icp19	icp18	80.817	80.785	0.032	80.785	0.032
41	icp15	icp19	269.962	269.962	0.000	269.962	0.000
42	icp18	icp21	173.111	172.987	0.123	172.987	0.123
43	icp17	icp21	269.960	269.960	0.000	269.960	0.000
44	icp16	icp20	269.973	269.973	0.000	269.973	0.000
45	icp20	icp21	341.344	341.574	0.230	341.574	0.230
				Jumlah	3.801	Jumlah	4.102793
				Rata-Rata	0.084	Rata-Rata	0.091

LAMPIRAN 4

PETA SEBARAN TITIK

Persebaran Titik ICP



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PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2019

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Meter

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LEGENDA

ICP

Batas Administrasi

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

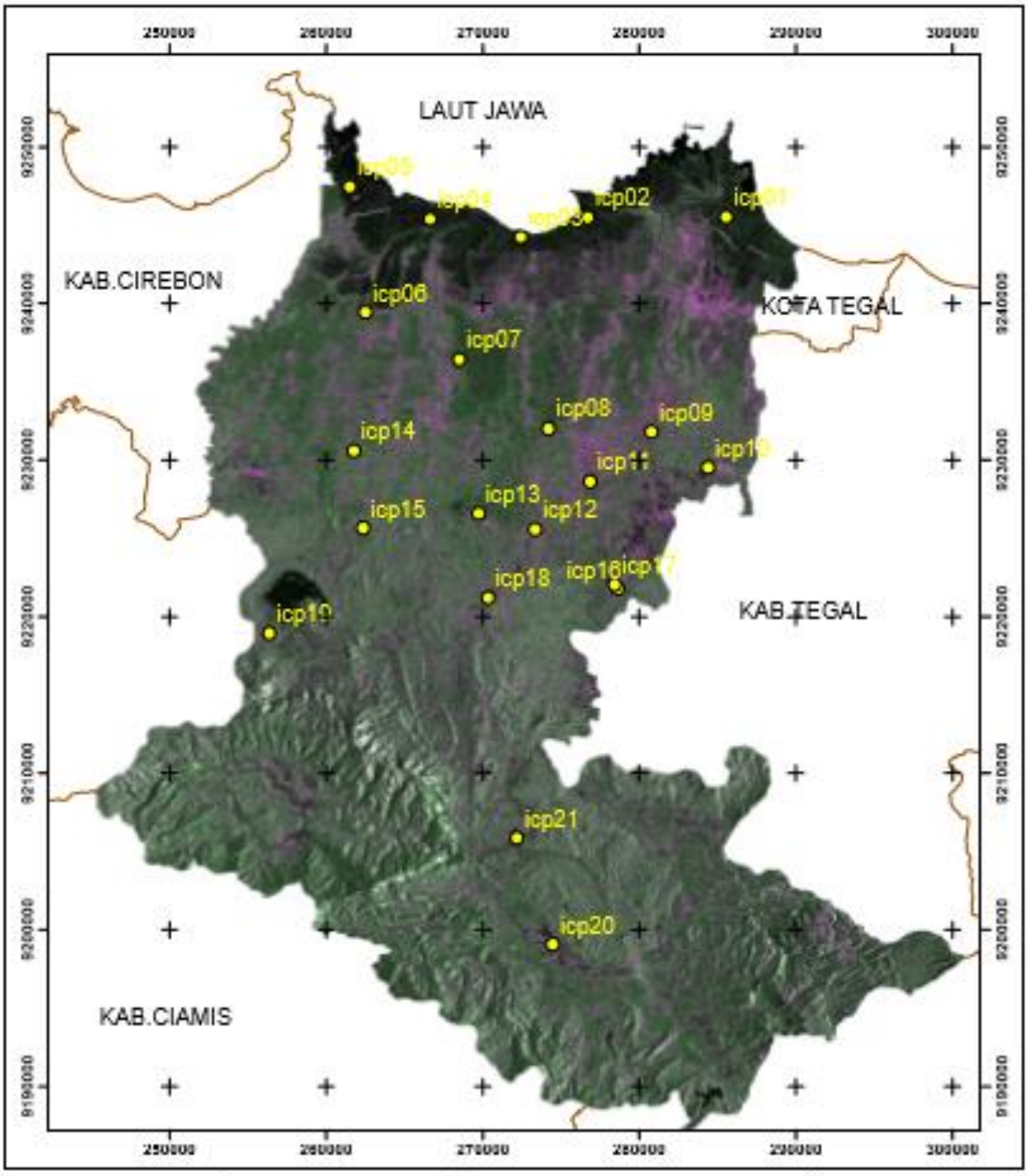
Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : BAMBANG SEPTIANA
NIM : 21110112130099

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST.,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST.,MT

INSET

Persebaran Titik Uji Peta RBI



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SEMARANG 2019

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LEGENDA

Titik Uji dan Peta RBI

Batas Administrasi

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

Jarak residu diperbesar 100 kali

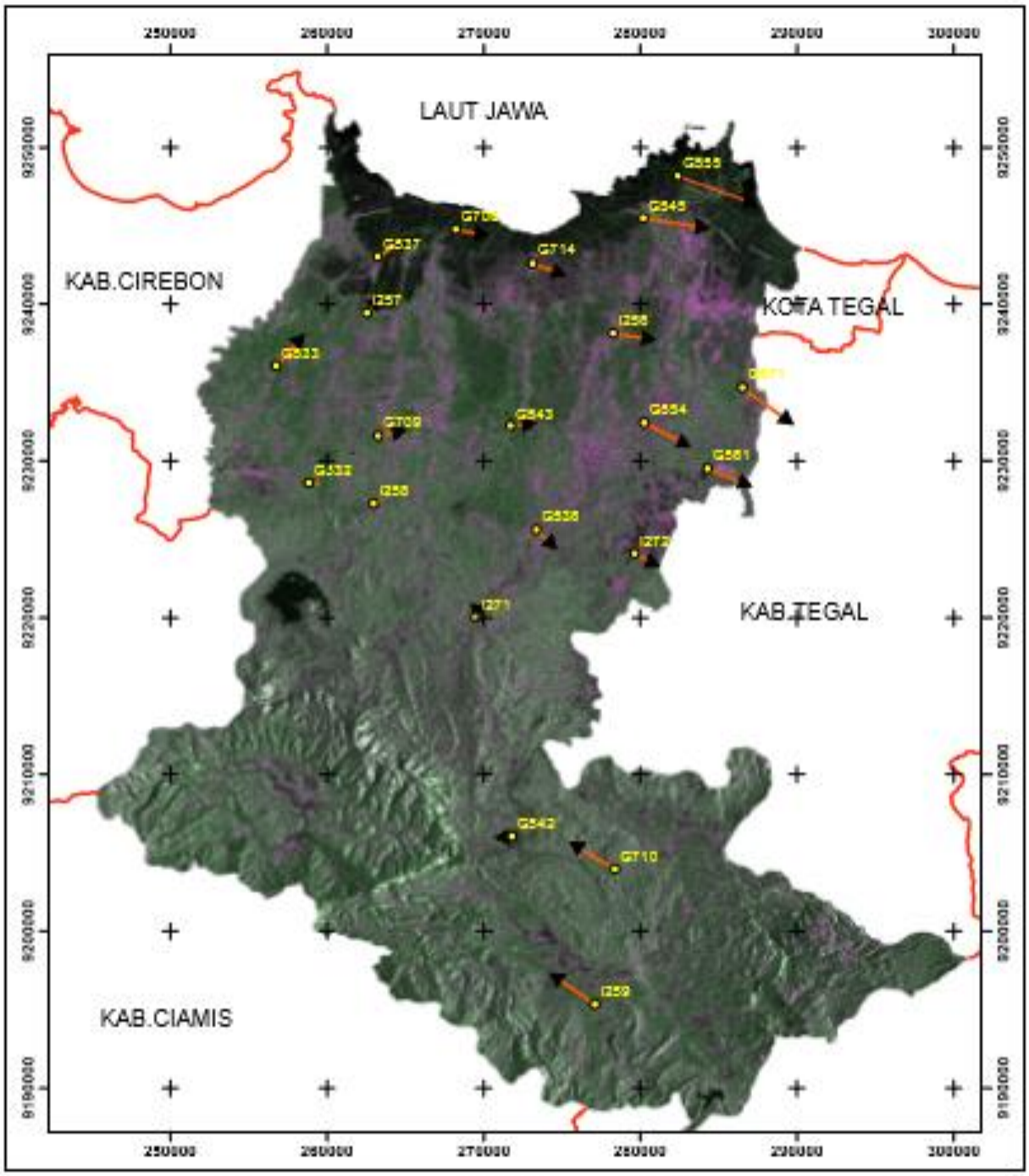
Dibuat oleh
Nama : SAMSONG SEPTIANA
NIM : 3111211213006

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

LAMPIRAN 5
PETA RESIDUAL METODE ORTHOREKTIFIKASI

Residual Orthorektifikasi SAR Simulation dengan ICP



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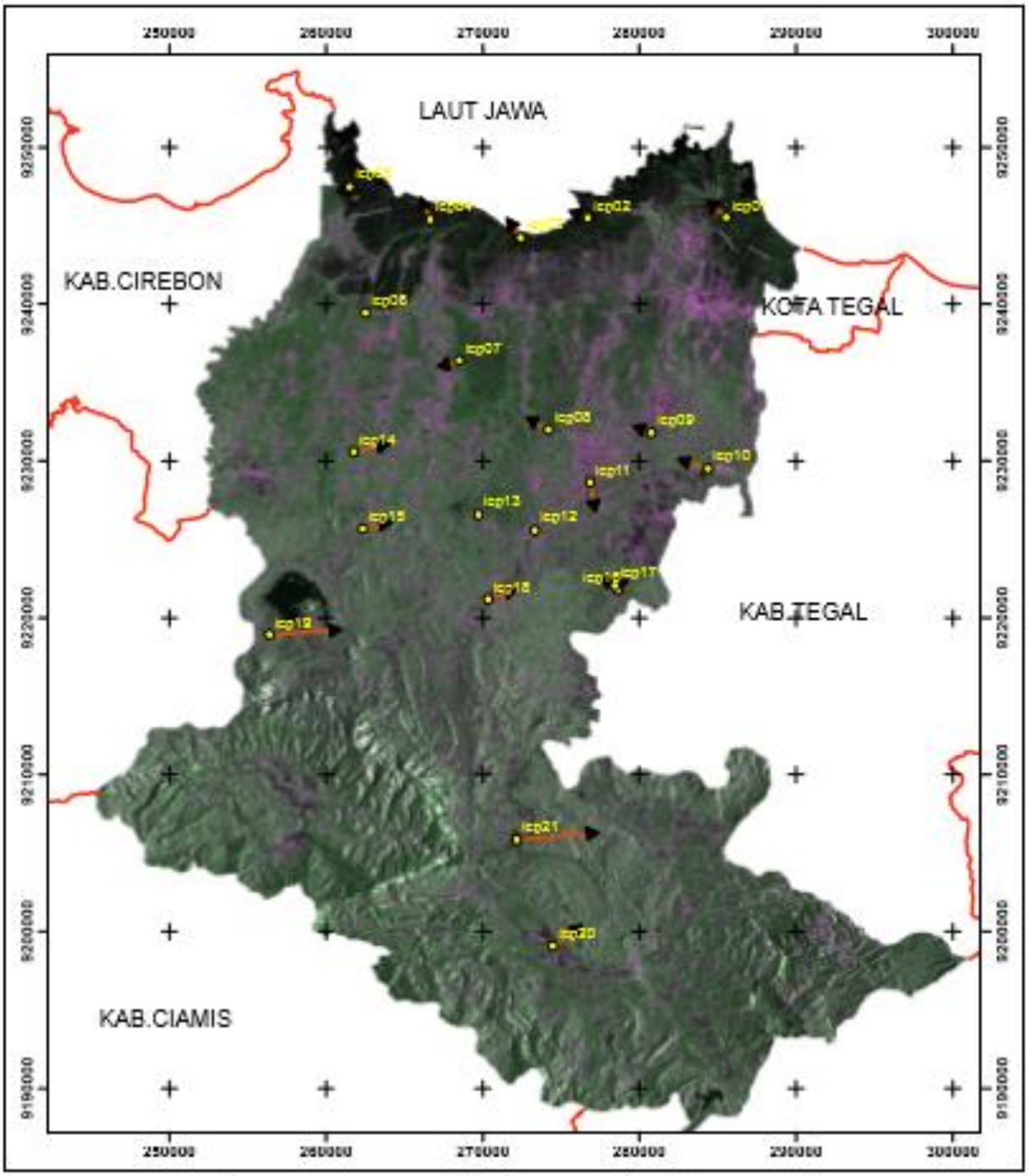
Residual Orthorektifikasi Range Doppler dengan RBI



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SEMARANG 2016

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LEGENDA

- Titik Uji Pasa RBI
- Arah Residu (100 x)
- Batas Administrasi

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

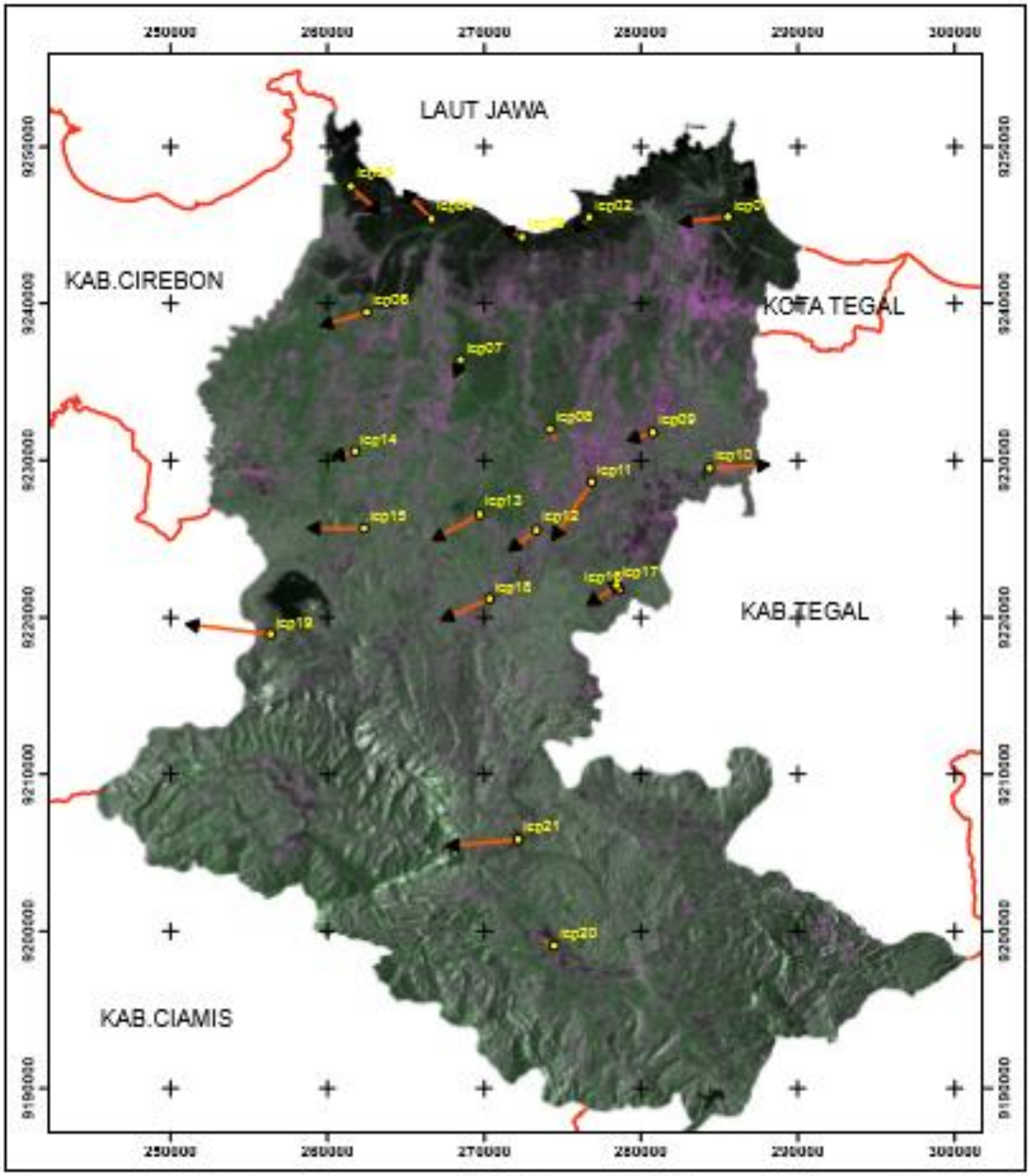
Arah residu diperbesar 100 kali

Dibuat oleh
Nama : SAMSONG SEPTIANA
NIM : 21111211213008

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Residual Orthorektifikasi SAR Simulation dengan RBI



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SEMARANG 2019

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LEGENDA

- Titik Uji Pasi RBI
- Arah Residu (100 x)
- Batas Administrasi

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

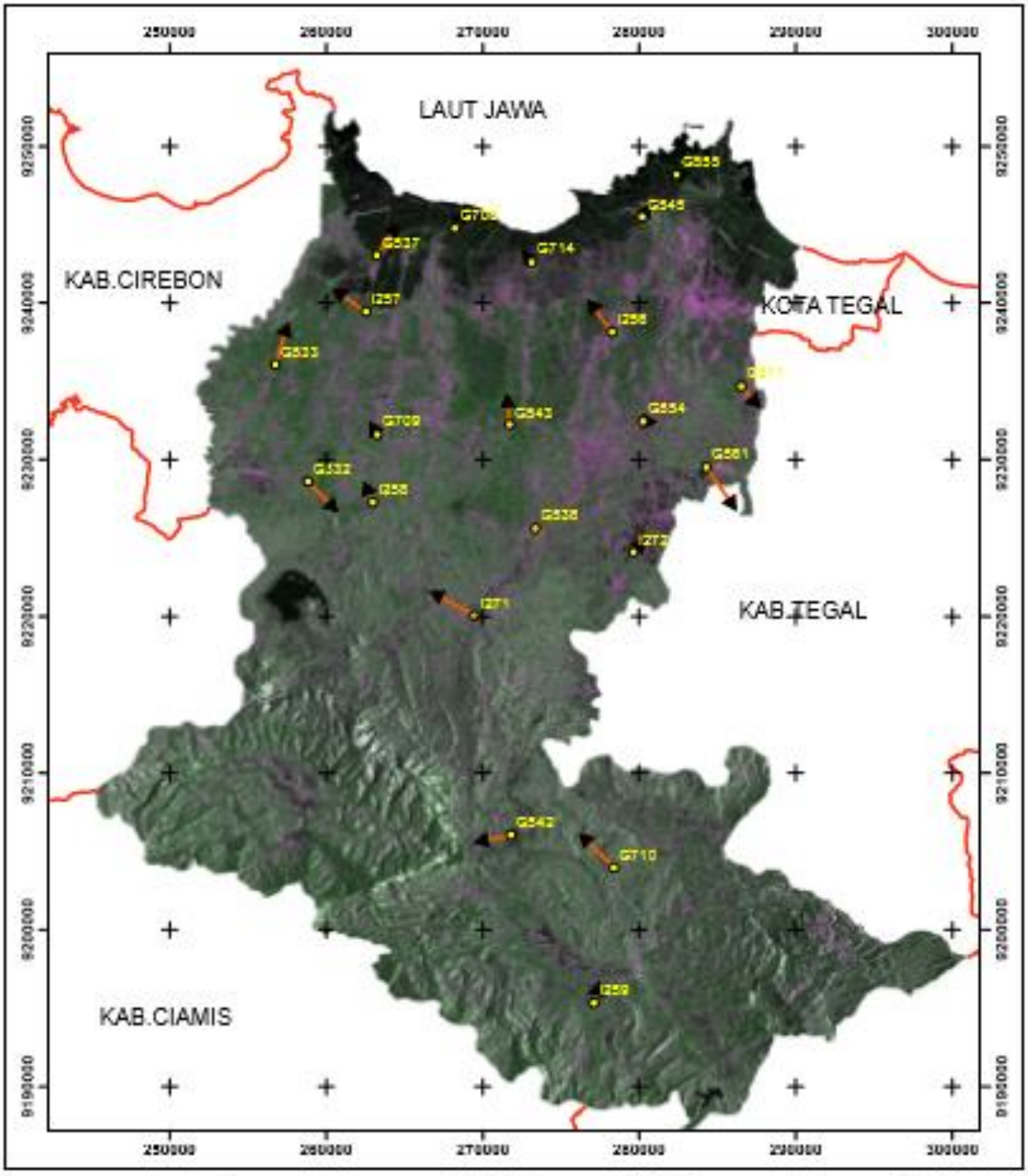
Arah residu diperbesar 100 kali

Dibuat oleh
Nama : BAMBANG SEPTIANA
NIM : 21110112120029

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Residual Orthorektifikasi Range Doppler dengan ICP



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SEMARANG 2018

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Meter

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LEGENDA

ICP
Arah Residu (100 x)
Batas Administrasi

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zone 49S

Arah residu diperbesar 100 kali

Dibuat oleh
Nama : SAMBANG SEPTIANA
NIM : 21110111120058

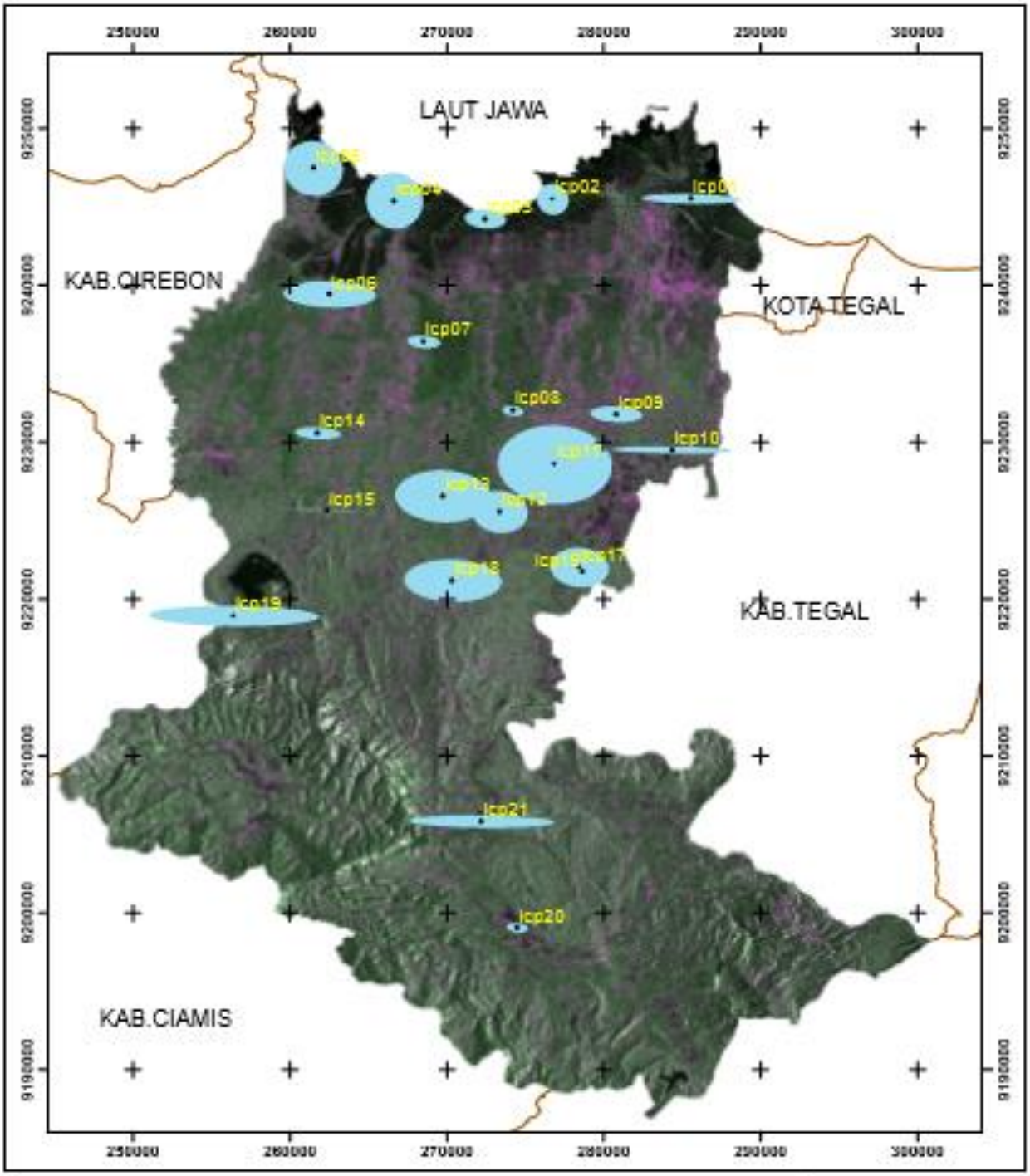
Diperiksa oleh
Dosen Pembimbing 1 : Jurvan Putra Wijaya,ST.,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST.,MT

INSET

LAMPIRAN 6

PETA DISTRIBUSI ERROR METODE ORTHOREKTIFIKASI

Error Ellips Titik RBI Metode SAR Simulation



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PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2019

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LEGENDA

- Titik uji RBI
- Ellips Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

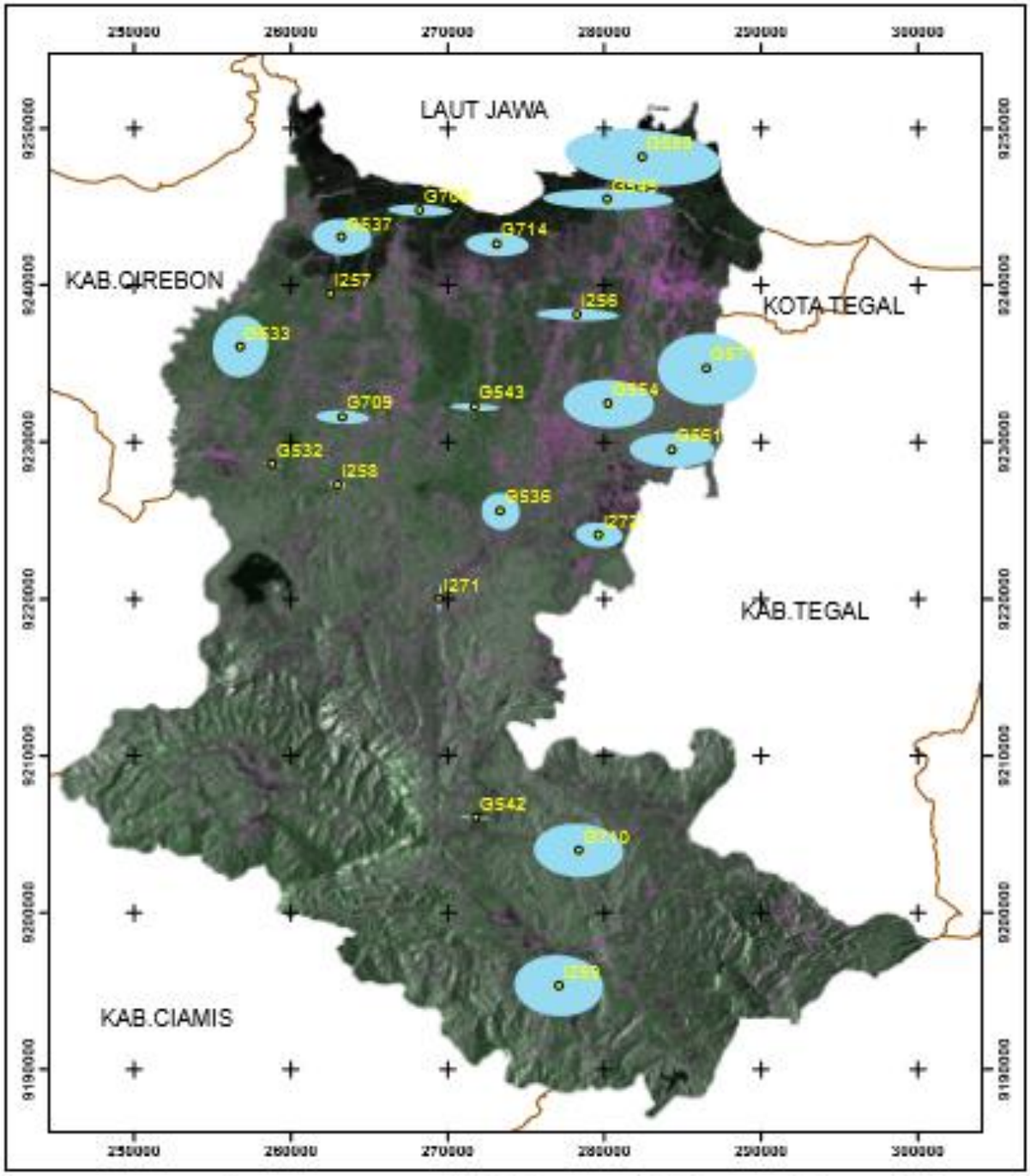
Jrsh residu diperbesar 100 kali

Dibuat oleh
Nama : SAMBUNG SEPTIANA
NIM : 21110112130058

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Error Ellips Titik ICP Metode SAR Simulation



FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2016

U

0 2,500 5,000 10,000 Meter

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LEGENDA

ICP
Ellips Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

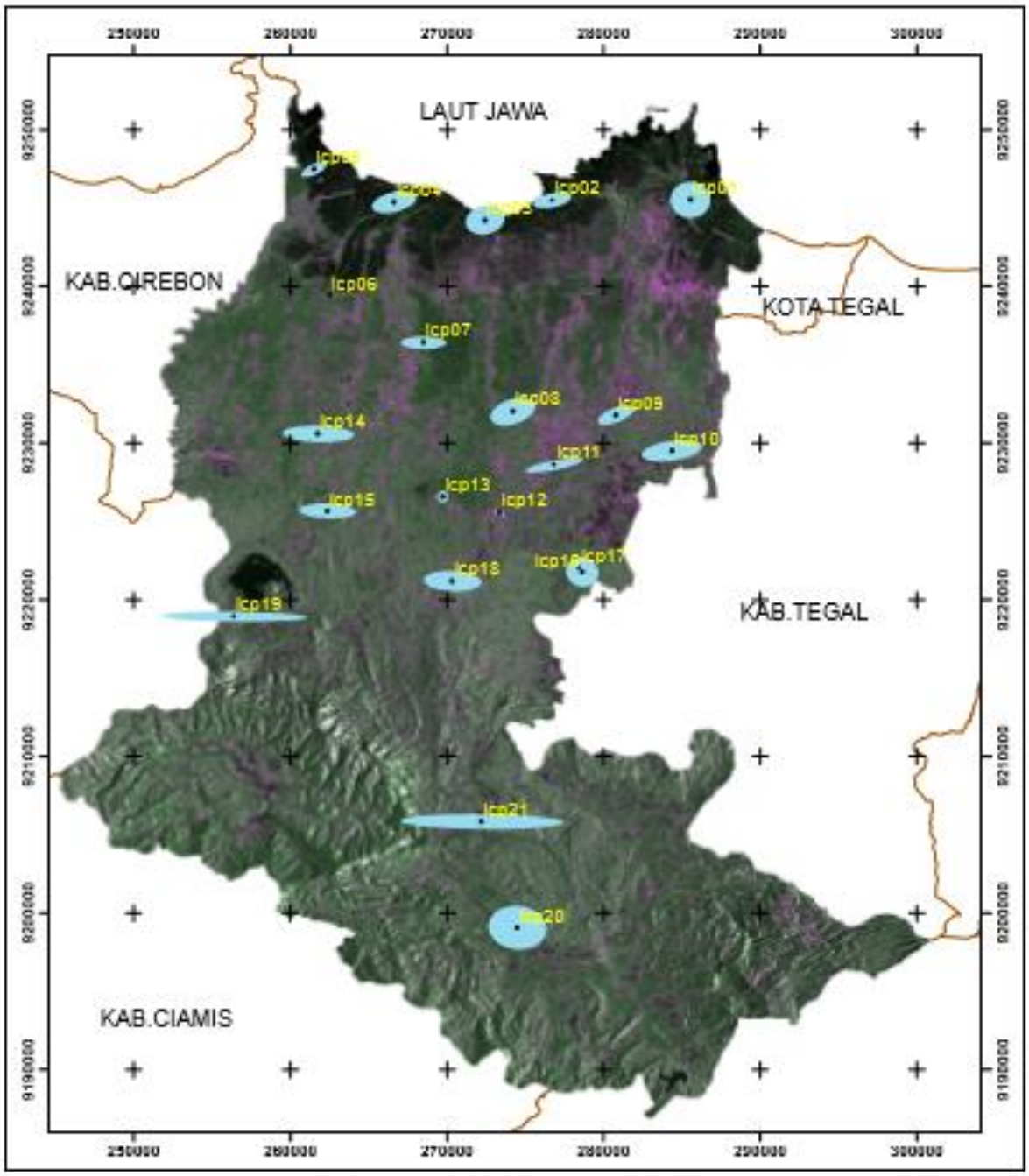
Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : BAMBANG SEPTIANA
NIM : 21110111130059

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Error Ellips Titik RBI Metode Range Doppler



FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2016

U

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Meter

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LEGENDA

Titik uji RBI
Ellips Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

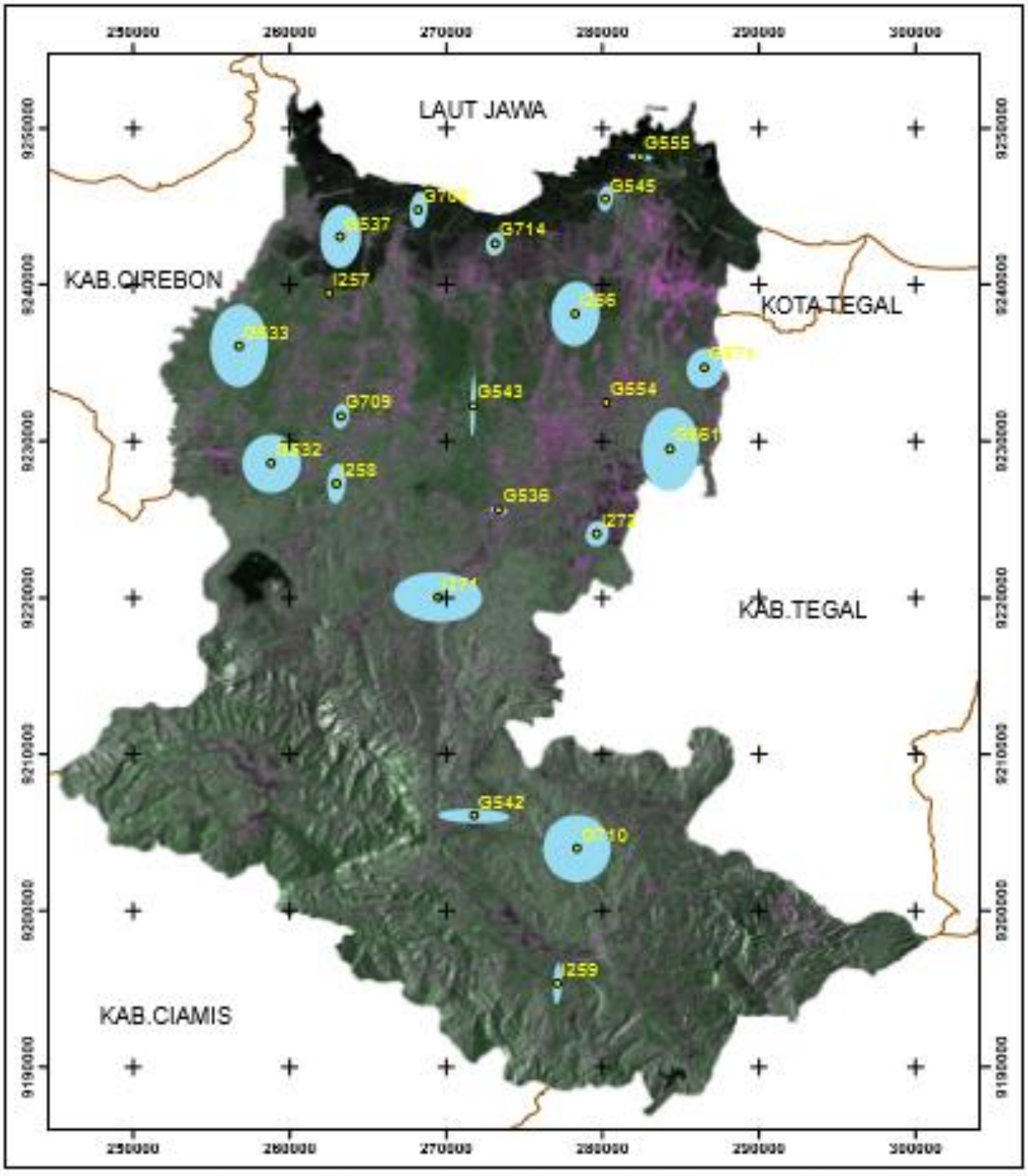
Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : SUMBANG SEPTIANA
NIM : 3111511213003S

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST.,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST.,MT

INSET

Error Ellips Titik ICP Metode Range Doppler



FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2016

U

0 2,500 5,000 10,000
Meter

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LEGENDA

ICP
Ellips Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

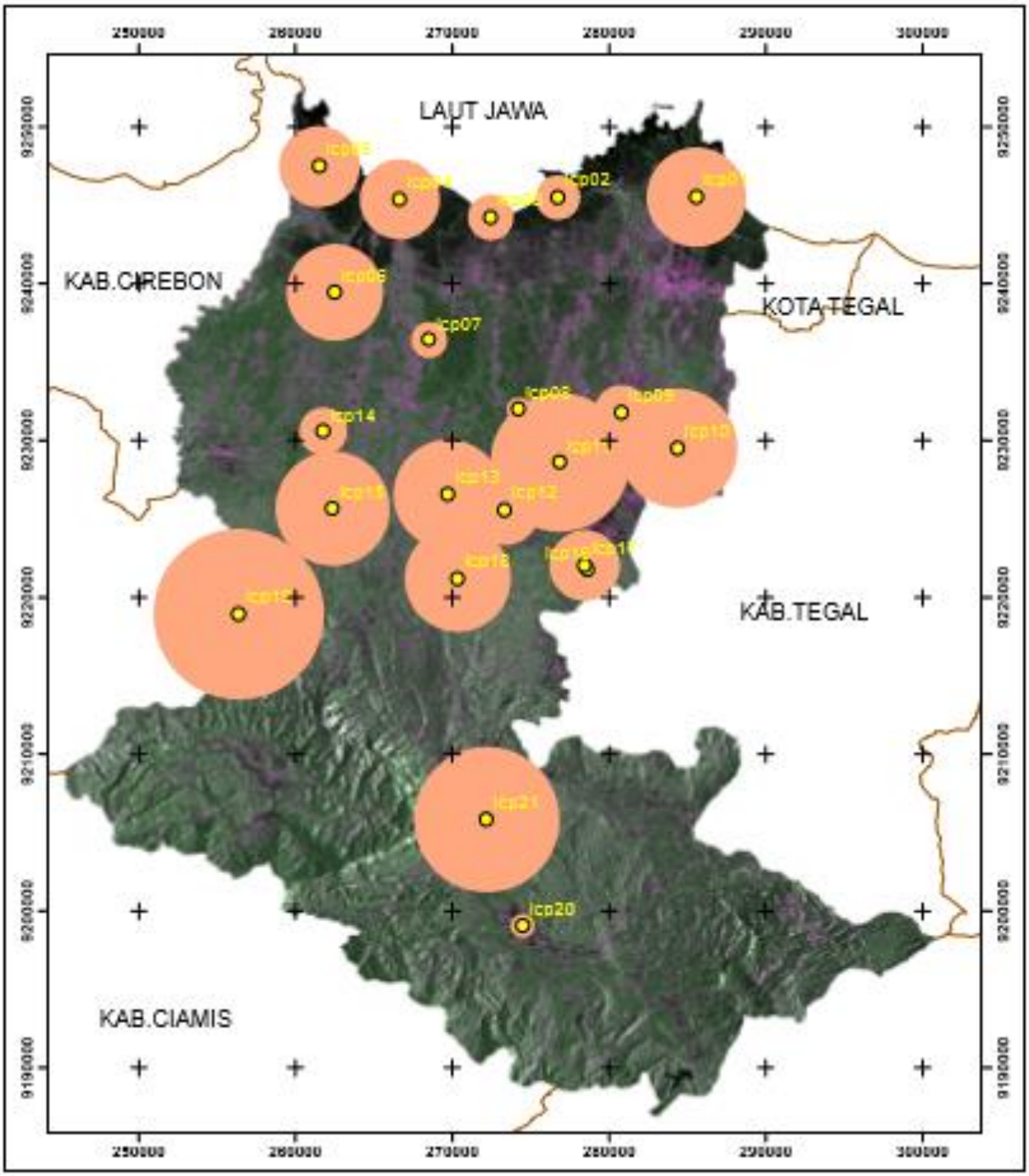
Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : BAMBANG SEPTIANA
NIM : 3111011212000S

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Distribusi Error Titik Uji RBI Metode SAR Simulation



FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2019

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0 5,000 10,000 Meter

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LEGENDA

- Titik uji gcp RBI
- Distribusi Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

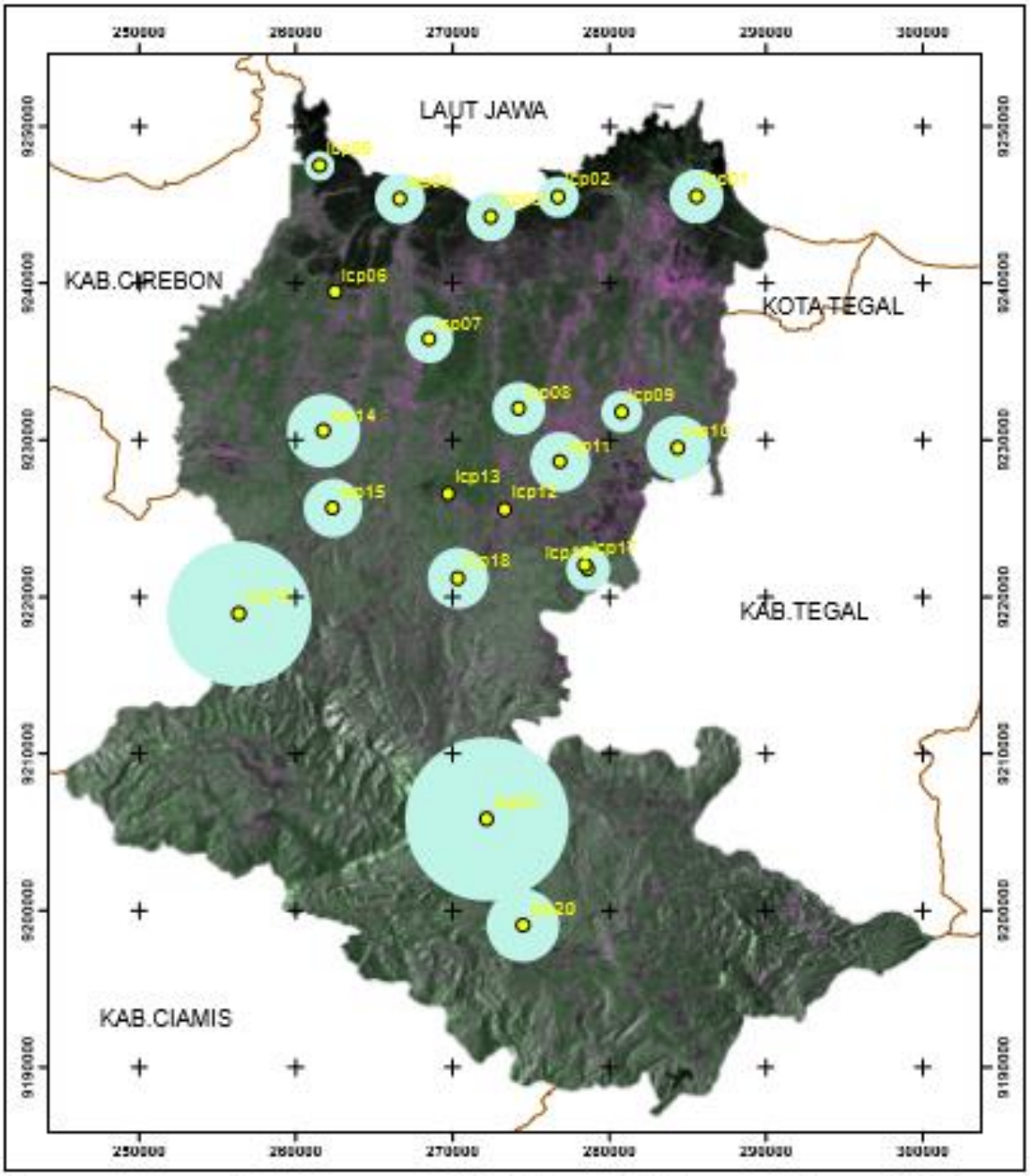
Jrak residu diperbesar 100 kali

Dibuat oleh
Nama : SUWARNO SEPTIANA
NIM : 3111511213000S

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST.,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST.,MT

INSET

Distribusi Error Titik Uji RBI Metode Range Doppler



FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK GEODESI
UNIVERSITAS GADJAH MADA 2016

U

0 2,500 5,000 10,000
Meter

1:350,000

LEGENDA

- Titik uji peta RBI
- Distribusi Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

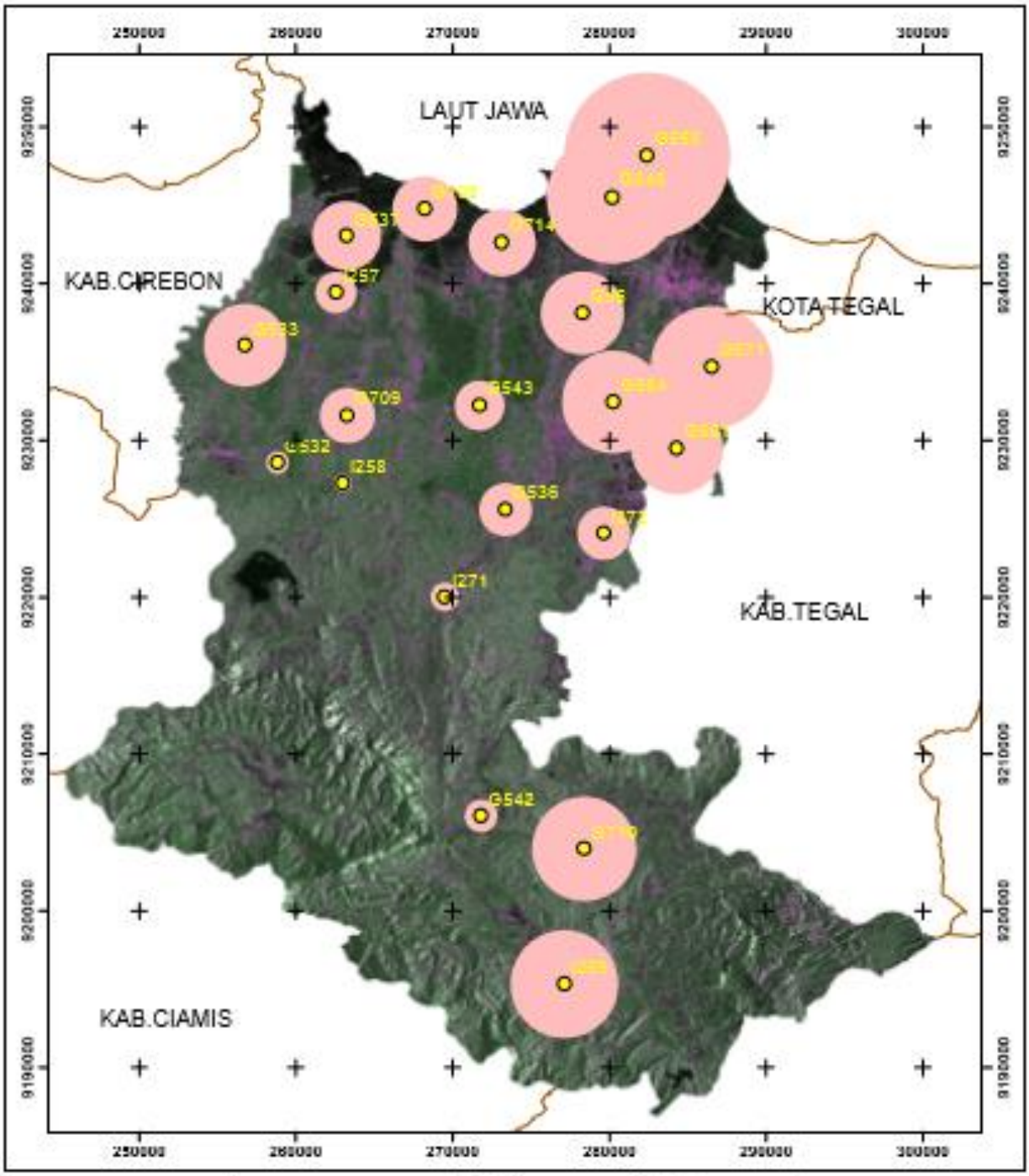
Jrak residu diperbesar 100 kali

Dibuat oleh
Nama : BAMBANG SEPTIANA
NIM : 31113112130059

Diperiksa oleh
Dosen Pembimbing 1 : Irwan Putra Wijaya,ST.,MT
Dosen Pembimbing 2 : Andri Suryajaya,ST.,MT

INSET

Distribusi Error Titik ICP Metode SAR Simulation



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PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2016

U

0 2,500 5,000 10,000
Meter

1:350,000

LEGENDA

ICP
Distribusi Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

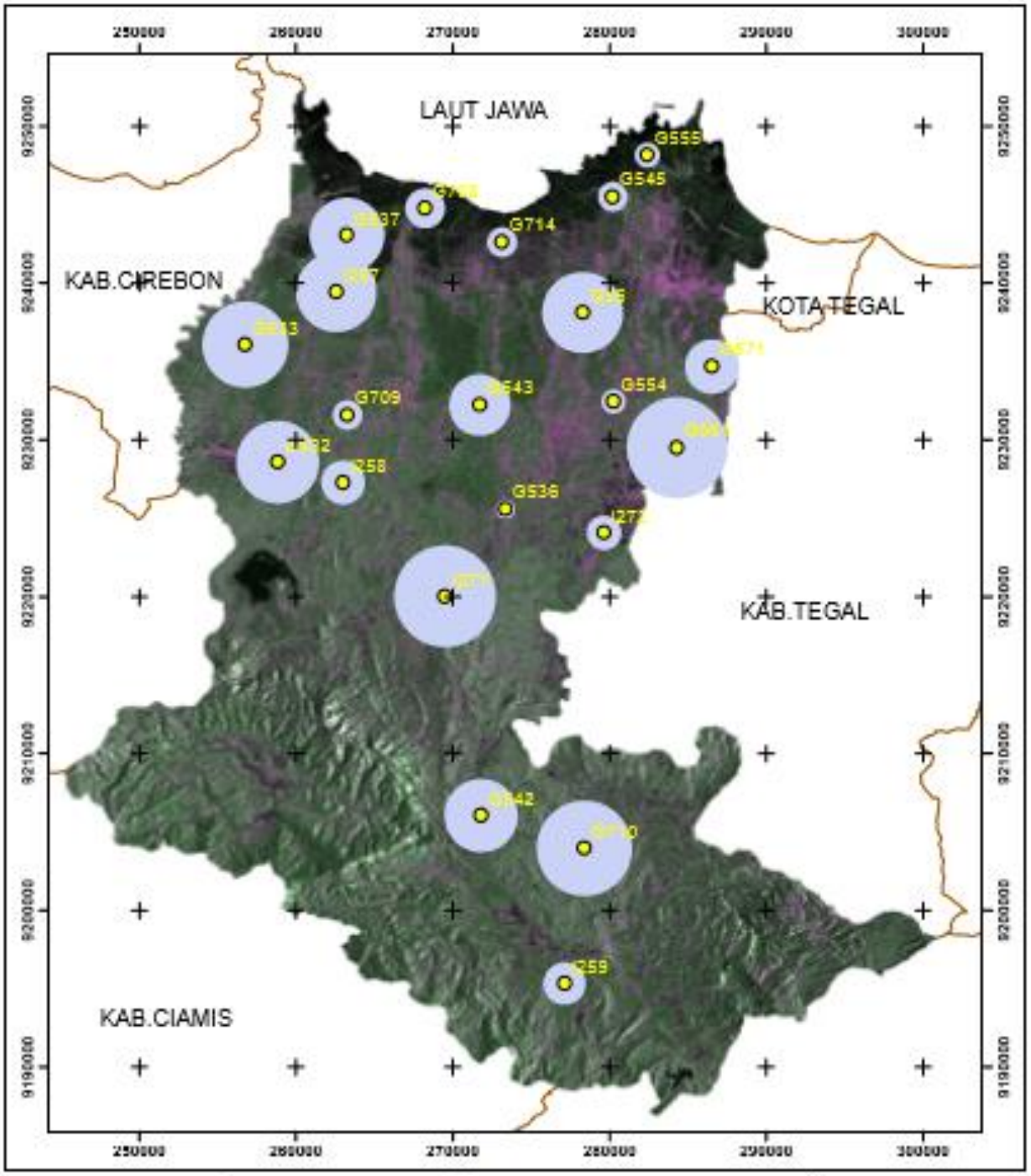
Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : BAMBANG SEPTIANA
NIM : 21110112120028

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Distribusi Error Titik ICP Metode Range Doppler



FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2019

U

0 5,000 10,000 Meter

1:350,000

LEGENDA

ICP

Distribusi Error

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : SAMSUNG SEPTIANA
NIM : 3111211213009

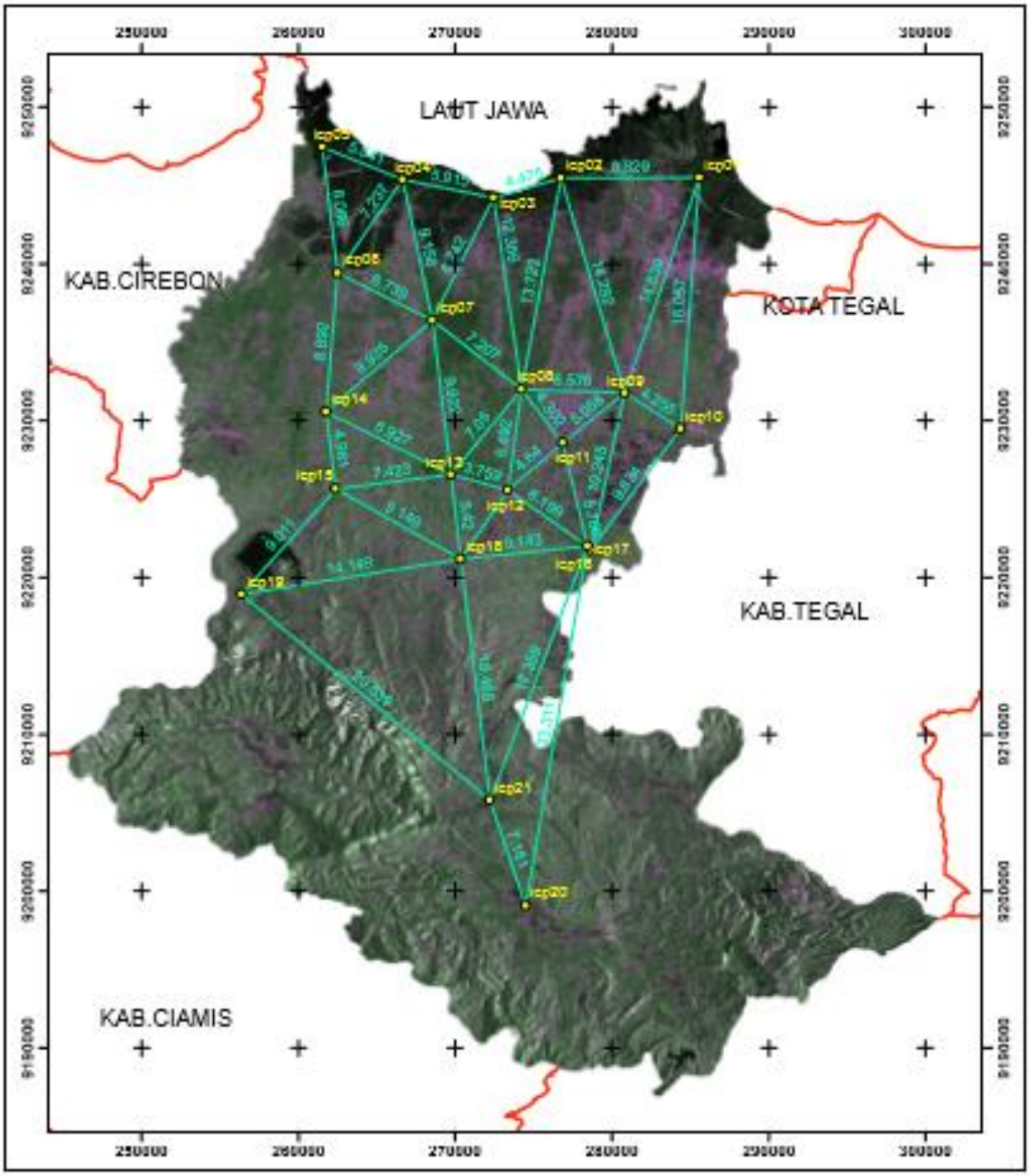
Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST.,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST.,MT

INSET

LAMPIRAN 7

PETA JARINGAN TITIK

Jaringan Titik Uji Peta RBI



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PROGRAM STUDI TEKNIK GEODESI
SEMARANG 2019

U

0 5,000 10,000 Meter

1:350,000

LEGENDA

- TitikUji Peta RBI
- Jaring titik ICP

Sumber Citra : Sentinel-1
Sumber Batas Administrasi : Badan Informasi Geospasial

Datum : WGS 1984
Sistem Proyeksi : UTM Zona 49S

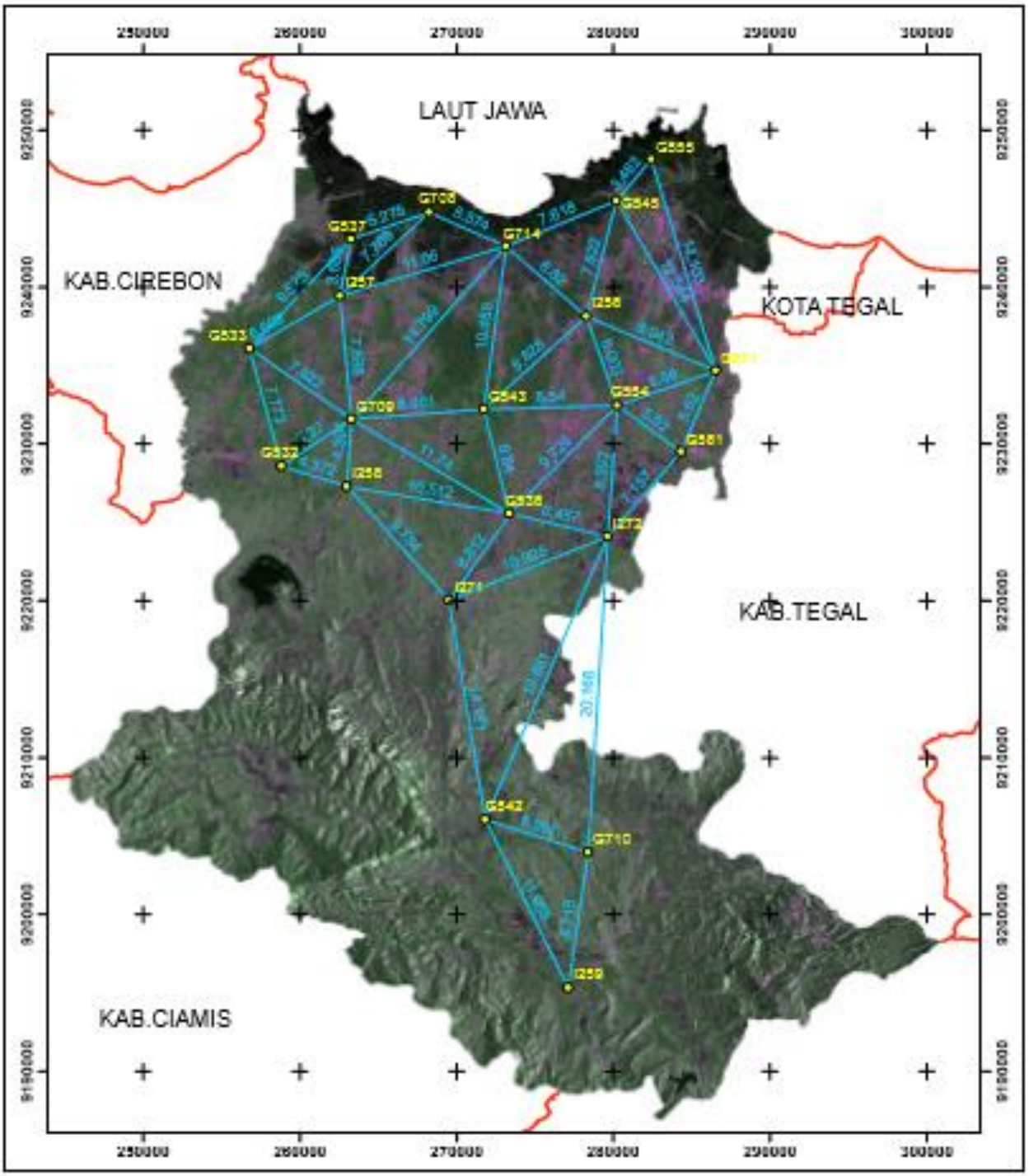
Jarak residu diperbesar 100 kali

Dibuat oleh
Nama : BAYU BAGUS SEPTIANA
NIM : 31110112130059

Diperiksa oleh
Dosen Pembimbing 1 : Arwan Putra Wijaya,ST,MT
Dosen Pembimbing 2 : Andri Suprayogi,ST,MT

INSET

Jaringan Titik ICP



FAKULTAS TEKNIK PROGRAM STUDI TEKNIK GEODESI SEMARANG 2016	U 0 2,500 5,000 10,000 Meter 1:350,000 LEGENDA Titik Uji Peta RBI Jaring titik ICP	Sumber Citra : Sentinel-1 Sumber Batas Administrasi : Badan Informasi Geospasial Datum : WGS 1984 Sistem Proyeksi : UTM Zona 49S Jarak residu diperbesar 100 kali Dibuat oleh Nama : SAMSUNG SEPTIANA NIM : 3111511213003S Diperiksa oleh Dosen Pembimbing 1 : Arwan Putra Wijaya,ST.,MT Dosen Pembimbing 2 : Andri Suprayogi,ST.,MT	INSET Laut Jawa